Interview (Part 3)

with Simen Frostad, Bridge Technologies

By Melissa Cogavin, Managing Editor, SCTE

In our third instalment of our interview with Simen at his stunning offices in Oslo, we discover how necessity really is the mother of invention; in Part II Simen explained that due to time constraints, he and his team literally soldered four Avid systems together to accommodate the recording of a Norwegian soap opera in order to circumvent recording onto cassettes. Recorded directly onto hard drives, it was then networked onto shared storage. At the time it was an industry first, and with the help of a third party in Switzerland who developed the timecoding capability across four Avids, the process changed the face of production and storage in an instant.

Simen K. Frostad, Chairman, Bridge Technologies

Broadband: Was it an overnight success? Or did this new technique meet with some resistance at first?

SF: The customer was over the moon and just said, "Wow, we want that." So we built four more studios in Stockholm for some production companies. One or two of our larger, corporate clients weren't comfortable. It took a long time to convince them, but ultimately their clients said, "Well, if you're not doing it then you're not getting the contract."

That's fairly typical of large companies, not that agile and they like to see social proof before committing. They wait to see what others are doing then they take the plunge.

SF: But in the end they capitulated, because what was the alternative?

Understandable. They want to be sure that it was going to work - then once they're in, they are behind you 100% right?

SF: Absolutely. It's natural to be a bit skeptical. I can't understand skepticism in this day and age, because it's so obvious that IP is the way out of anything. And if you're not in on it now, you are not going to survive; it's not going away.

Of course SDI, ASI, MPEG-2 will be with us forever, because there is legacy stuff that's going to continue and why not? There wasn't a lot of resistance overall, but the speed of adaptation is not as fast as I would have believed it would be. Within distribution, terrestrial will be with us for the foreseeable future. Satellite is brilliant for distribution purposes, because it can reach places where you don't have fibre optics. Satellites will never die, because there is a lot of legacy content, plus a lot of military and government activity.

What's around the corner for IP?

SF: Ultimately content delivery as a service will go away and it will be put on top of the IP-based platform, that's not up for debate. It's just about how fast it will happen, and it'll happen very, very fast with the next generation; LEO Satellites (low earth orbit) are going to emerge because by then bandwidth will be no problem.

Limited bandwidth has always been the issue, but if that changes…

SF: With serious bandwidth you can then fulfill crazy resolution capabilities. Then there is the need for validation equipment; if you don't validate that it works, then how do you actually know it works? That's only the test and measurement angle. We see that the capabilities of our system are practically endless and with the addition of different functions, we will create a system core that can become one of those invaluable boxes in production and that could ultimately allow users to get rid of other technologies.

Can you give me an example?

SF: Yes; I mentioned signal generation. We have now a signal generator which can generate any kind of signal, all the way from standard definition up to 4K in any frame rate, any kind of resolution with items and test tone patterns; that means that's suddenly you don't need that anymore, it can just use the VB440.

The customer wants fewer surfaces to maintain and to operate, but it demands a lot of hard work to make that happen, because you just can't load functions, upon functions, upon functions. It has to be very logical, extremely accurate it has to work all the time.

Five years down the line, where do you see Bridge Technologies? What are you doing?

SF: Well, first of all, we never think as far ahead as five years, the most we think about is three years. Beyond three years, anything is possible and nothing is predictable. But three years-ish at least we can see fairly clearly; I suspect that we'll have a plethora of functions. So if you want to create an outside broadcast vehicle, or a gallery, or a studio with 12 to 24 cameras, you will have probably three to five of our units or maybe even more inside that vehicle for your production. It's possible to reduce half a rack or more, probably nearly a full rack of equipment into one of our units. We already have customers doing this.

Will AI be helping you as you would go forward?

SF: I'm a big skeptic. I don't even call it AI, because I don't think that's a very accurate name. I call it machine learning and I can see pattern recognition and ML as an interesting part of our future, when it comes to automatic analytics of big distribution data. As it has a lot of capabilities; it can automatically look for specific traits and then give you both better warning mechanisms. It's perfect for dissecting errors in the past as well. But overall, I'm not very impressed by what I've seen so far.

Most people are either blown away or worried sick. Is it just early days for you?

SF: In our business, customers believe that they want certain technologies, such as freeze frame detection, which we have explored already. It takes a huge amount of calibration from

our side for a service that ultimately isn't really used much anyway. A lot of people think it's a good idea, but in the end realise they don't need it, because freeze frame detection is kind of useless. We have found that nearly everybody turns that off immediately. Color frame detection, black frame detection, silence detection are, on the other hand, super useful. How much are we going to sacrifice in a couple of years to train systems?

The business is changing all the time and you have anticipated that change well before the rest of the industry.

SF: The reason I like this industry is because some super brilliant people are part of it. These amazing minds keep on pushing the limits of what's possible. One company we work with has gone way above and beyond anything that anybody else is doing in the industry right now; I am so proud to say we are part of this.

What they are doing blows my mind. They have tons of VB440s to manage their workflow and to validate, because when Steven Spielberg is sitting there, things have got to work and there is of course no compromise.

I can envision an interesting future; imagine being on a set and uploading your media files directly to the data centre. You will then need a clear interface to understand that everything's fine. That's where the VB440 comes in. Of course, you can use all the very advanced HDR capabilities of the VB440 on the studio set as well. So that the lighting director can go around with an iPad, checking lighting levels, and record directly onto the data centre.

You don't seem constrained creatively by what's gone on in the past. You're completely willing to rethink it all.

SF: That's the beauty of software, because there is nothing we just can't do. Computers are just getting better and help with all those practicality issues and interface speeds are going up. It will just evolve into better stuff. That is a very big lesson for everybody.